

## ABSTRACT OF THE DISCLOSURE

There is provided a resonance frequency detecting device of a multi-shaft electric motor control apparatus which can detect the resonance frequencies of other shafts to influence an operating shaft in a machine having the shafts. In a resonance frequency detecting device of a multi-shaft electric motor control apparatus including a plurality of electric motor control systems having electric motors (31) and (32) for driving machines (41) and (42) and controllers (21) and (22) for driving the electric motors (31) and (32), each of the electric motor control systems having detectors (51) and (52) for detecting the operating amounts of the machines (41) and (42), signal processors (61) and (62) for analyzing the frequencies of the signals of the detectors (51) and (52) and outputting the frequencies as resonance frequencies, and output devices (81) and (82) for changing the signals of the signal processors (61) and (62) into graphs or numeric values to be output, a command generator (11) for giving the electric motor control system a control command for transmitting a vibration to the machines (41) and (42) is provided to input the signals of the detectors (51) and (52) to the signal processor (61) and to output them as resonance frequencies.